

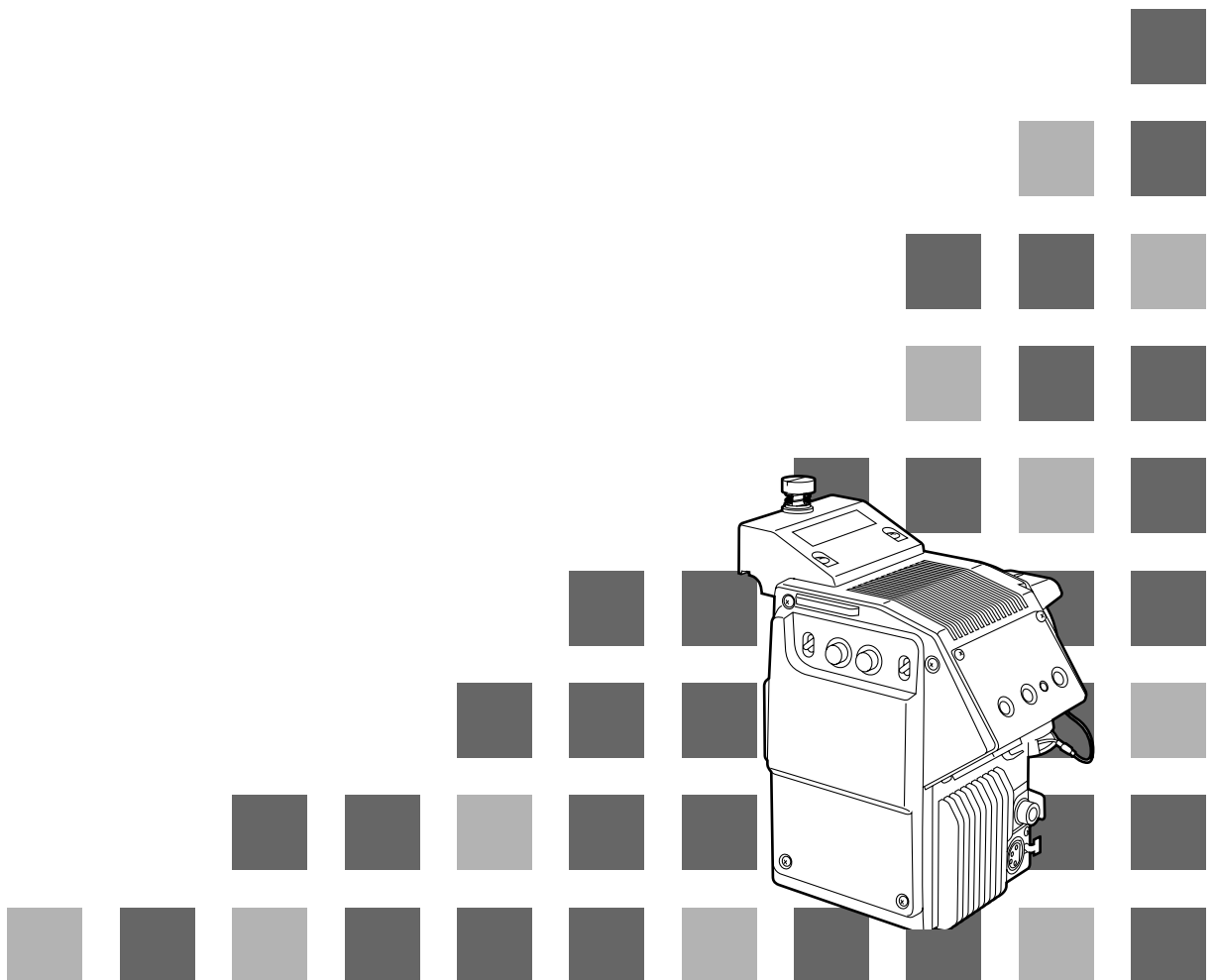
Panasonic

Digital Triax Camera Adapter

Operating Instructions

Model No. **AJ-CA901**_P_{EN}

DVC PRO



Thank you for purchasing this product.
Before operating this product, please read the instructions carefully and save this manual for future use.

Safety precautions

General

WARNING:

- TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.
- TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, KEEP THIS EQUIPMENT AWAY FROM ALL LIQUIDS—USE AND STORE ONLY IN LOCATIONS WHICH ARE NOT EXPOSED TO THE RISK OF DRIPPING OR SPLASHING LIQUIDS, AND DO NOT PLACE ANY LIQUID CONTAINERS ON TOP OF THE EQUIPMENT.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

CAUTION:

Do not install or place this unit in a bookcase, built-in cabinet or any other confined space in order to maintain adequate ventilation. Ensure that curtains and any other materials do not obstruct the ventilation to prevent risk of electric shock or fire hazard due to overheating.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, REFER CHANGE OF SWITCH SETTING INSIDE THE UNIT TO QUALIFIED SERVICE PERSONNEL.

Model AJ-CA901P



CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER TO SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (service) instructions in the literature accompanying the appliance.

FCC Note:

This device complies with Part 15 of the FCC Rules. To assure continued compliance follow the attached installation instructions and do not make any unauthorized modifications.

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Model AJ-CA901EN

■ DO NOT REMOVE PANEL COVER BY UNSCREWING.

To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside.
Refer servicing to qualified service personnel.

 Indicates safety information.

Thank you very much for purchasing this AJ-CA901 Camera Adapter (referred to throughout these instructions as “the unit”). The unit is installed in a DVCPRO50 AJ-SDX900 camera recorder and used together with the AJ-BS901 base station to configure a transmission system which uses a tri-axial cable to enable the camera recorder to be operated as a system camera.

Use of non-compressed wide-band 360 Mbps serial component signals makes high picture quality transmission possible so that the high picture quality of the images shot by the DVCPRO camera recorder are transmitted with their high picture quality kept intact.

This serves to expand the range of the DVCPRO camera recorder’s operating formats.

Note:

- When the unit is connected, external input signals cannot be recorded on tape inside the camera recorder. “CAM” must be selected as the REC SIGNAL setting on the SYSTEM SETTING menu of the camera recorder.
- When using an external power supply (DC 12 V) for the unit, always turn the main power switch of the base station (AJ-BS901) ON before turning the power switch of the camera recorder ON.

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Features

The unit has the following features.

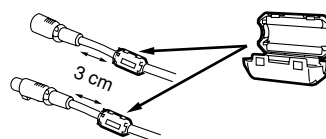
- It enables high picture quality transmission by means of non-compressed wide-band 360 Mbps serial component signals.
- It uses a tri-axial cable.
- It enables a DVCPRO camera recorder to be operated as a system camera.
- It enables the transmission of the signals of two audio channels.
- It enables RET 1CH and PROMPT 1CH transmission.
- Its TRIAX connector area can be rotated for easy operation.
- It comes with RET and PROMPT output connectors (BNC).
- It comes with a DC 12 V output jack.

Accessories

- Operating instructions
- Warranty card (AJ-CA901P only)
- List of service centers (AJ-CA901P only)
- Ferrite core (AJ-CA901EN only): 2 pcs

<Note for AJ-CA901EN>

Two ferrite cores (Manufacturer part No. TDK: ZCAT2035-0930) are supplied with AJ-CA901EN. When using this unit with an external power supply (DC 12 V) input, attach a ferrite core to the DC power code at a distance of 3 cm from both connector edges.



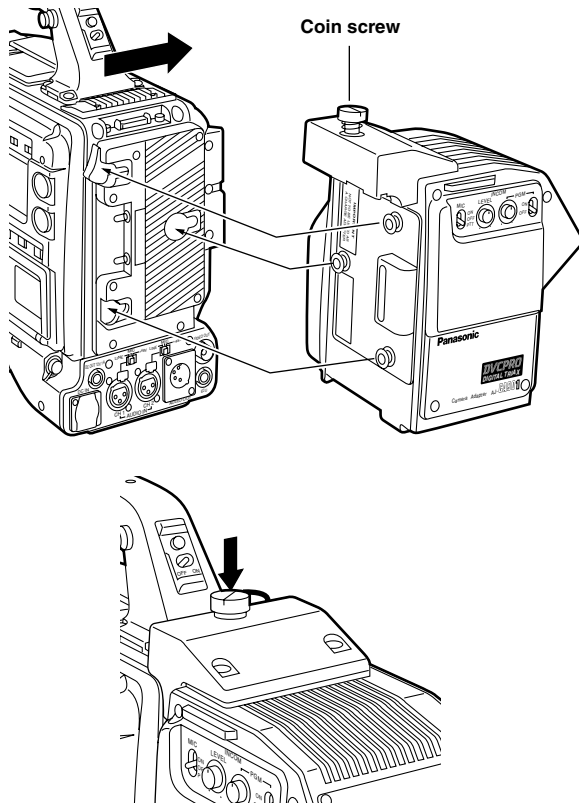
Installation

Follow the steps below to attach the unit to the camera recorder.

<Note>

Depending on the version of the software being used with the camera recorder, it may be necessary to update it, in which case you should consult your dealer.

1. Make sure that the coin screw used to secure the AJ-CA901 connectors is unscrewed (The screw will be completely disengaged from the thread.). Mounting the AJ-CA901 with the screw in the closed position could damage the connectors.
2. As shown in the figure on the left, align the spacer on the back of the camera recorder with the guide in the unit, and push the unit in the direction of the arrow until it clicks into place.
3. Screw the coin screw to the closed position while pressing down on it.

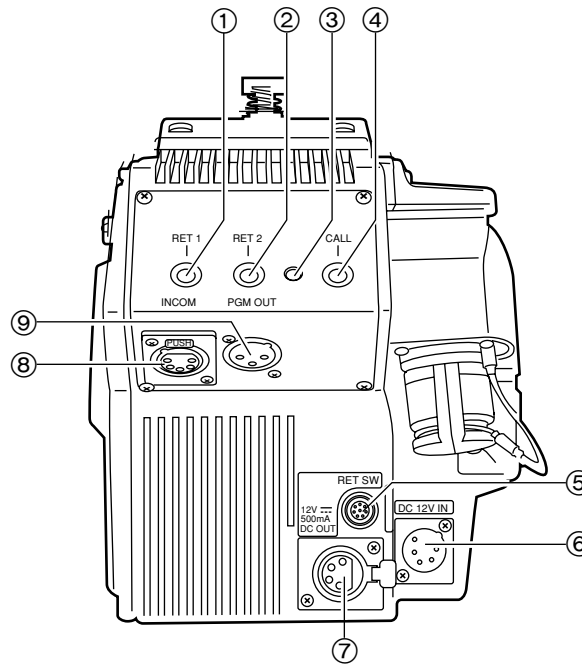


<Note>

After the AJ-CA901 has been attached to the camera recorder, the camera recorder cannot be operated independently unless it has been connected as a system to the AJ-BS901 Base Station. When using the camera recorder unit independently, always remove the AJ-CA901 before proceeding.

Parts and their functions

Rear panel



① **Return select button (RET1)**

This button is used to select the return signal generated when the return switch is pressed. This button selects RET1.

② **Return select button (RET2)**

This button is used to select the return signal generated when the return switch is pressed. This button selects RET2.

③ **Call lamp**

This lights when the camera recorder has been called up by the base station (AJ-BS901) or when R TALLY has been set to ON.

④ **CALL button**

This button is used to call the base station (AJ-BS901) from the camera adapter. Pressing the CALL button causes the CALL lamp on the AJ-BS901 to light.

⑤ **Return switch jack (RET SW)**

This jack connects to RET SW BOX. Supported functions are RET1 and RET2 selection as well as intercom PTT (push to talk) and CALL.

⑥ **DC 12V IN (external power supply input) jack**

When the unit is operated using an external power supply, the AJ-B95 AC adapter (sold separately) connects to this jack. It is also possible to connect an external battery to this jack.

When connection is made to this jack, the external power supply is selected automatically.

<Note>

When the AJ-CA901 camera adapter (this unit) has been installed, the camera recorder unit is set to EXT DC IN mode. When the battery warning is displayed, select the type of battery for detecting the remaining charge in EXT DC IN SELECT of BATTERY/TAPE in the VTR menu of the camera recorder.

⑦ **DC OUT (DC power supply output) jack**

This is a DC 12 V output jack. A current up to 500 mA can be output from this jack.

⑧ **Intercom connector**

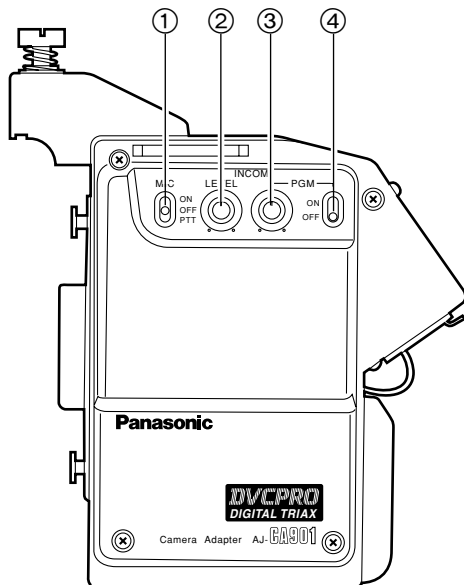
This connector is used to connect to an intercom system via the AJ-BS901 for two-way voice connections.

⑨ **PGM OUT connector**

This is the PGM audio output connector.

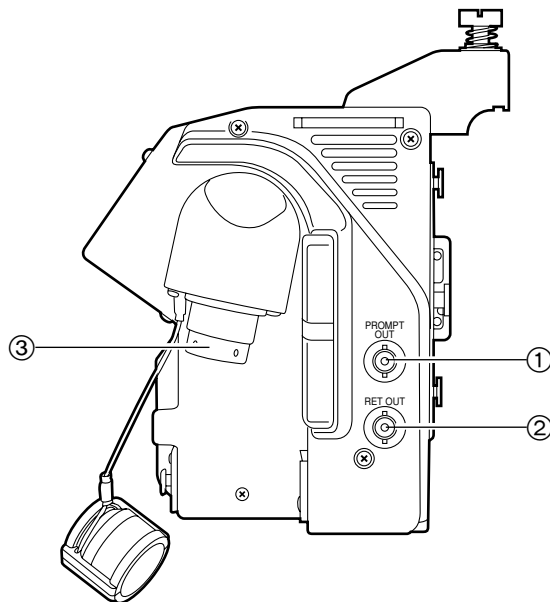
Parts and their functions

Left side



- ① **Microphone intercom switch (MIC)**
Used to switch the intercom line between the ON, OFF, and PTT settings. (PTT: Audio transmission continues as long as the switch is held down.)
- ② **Intercom level knob (LEVEL)**
This knob is used to adjust the intercom reception volume level.
- ③ **Program level knob (PGM)**
This knob is used to adjust the intercom PGM volume level.
- ④ **Program line switch**
This switch controls the program line multiplexed on the intercom line. It has two positions: ON and OFF.

Right side

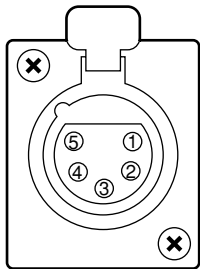


- ① **Prompter video output (PROMPT OUT)**
The prompter video signal input to the base station (AJ-BS901) is output from this jack.
- ② **Return video output (RET OUT)**
The return video signal (either RET1 or RET2) input to the base station (AJ-BS901) is output from this jack. RET-1 or RET-2 is selected by operating the return select button (see page 5).
- ③ **Triax connector**
This connector is used to connect to the base station (AJ-BS901) using a triax cable.

Connectors and signals

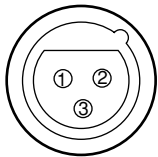
INCOM	
1	GND
2	INCOM TALK (H)
3	GND
4	INCOM RECEIVE (H)
5	PGM / RECEIVE (C)

Matsushita part number: VJS3290
 Manufacturer part number: HA16PRH-5S
 (Hirose Denki)



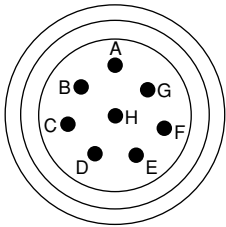
PGM OUT	
1	GND
2	PGM (H)
3	PGM (C)

Manufacturer part number: HA16RM-3P
 (Hirose Denki)



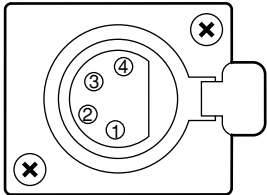
RET SW	
A	RET1
B	MIC ON/OFF
C	RET2
D	TALLY
E	GND
F	+12V-OUT
G	CALL
H	GND

Manufacturer part number: PRC07-R8F
 (Tajimi Musen)



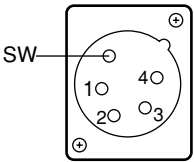
DC 12V OUT	
1	GND
2	
3	
4	+12V

Manufacturer part number: HA16PRH-4S
 (Hirose Denki)



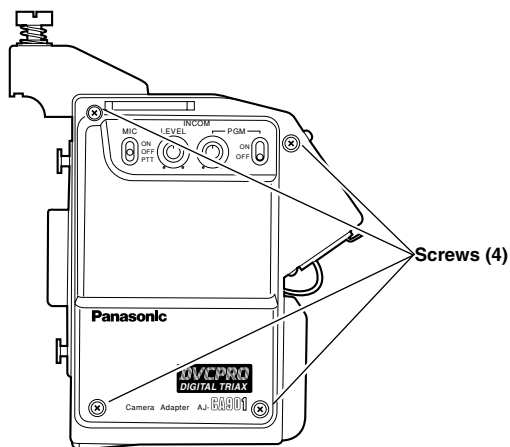
DC IN	
1	GND
2	
3	
4	+12V

Matsushita part number: VJP3429
 Manufacturer part number: HA16RX-4P(SW1)
 (Hirose Denki)

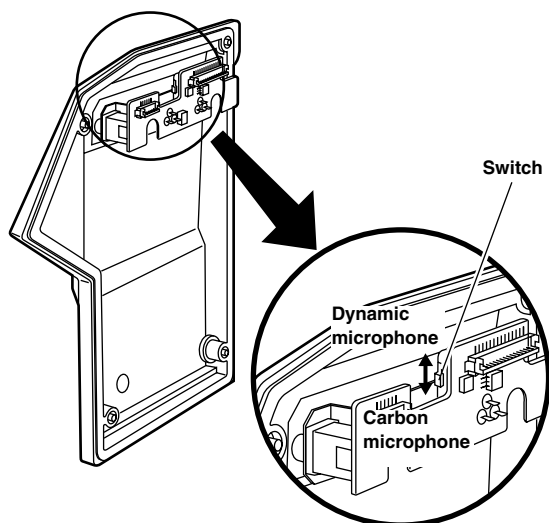


Selecting the intercom microphone

Proceed as follows to select the dynamic microphone or carbon microphone as the intercom microphone. Before proceeding with the work, be absolutely sure to turn off the power.



1. Remove the four screws from the side of the AJ-CA901 shown in the figure, and remove the side panel.



2. Refer to the figure on the left, and set the switch inside the side panel which was removed.

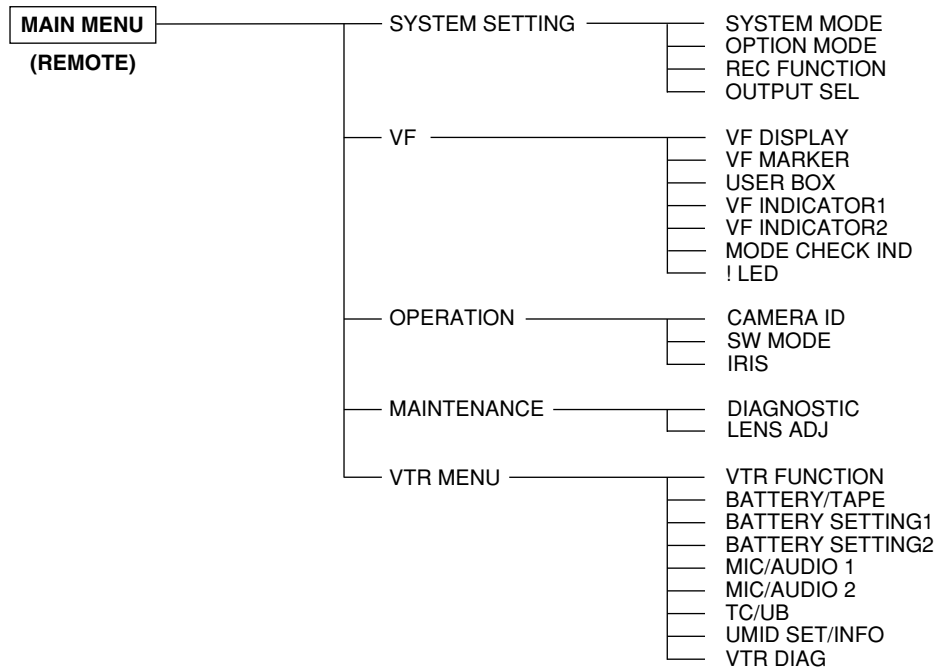
CAUTION:

These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

Camera recorder menu configuration

REMOTE menu

When this unit has been connected to a camera recorder to form a system, the menu for the camera recorder will be as shown below.



<Note>

When this unit is connected to a PAL system camera recorder

Note that, depending on the version of the software, the following menu may not appear in the TC/UB menu.

However, if the version of the software used in the system supports the operations contained in the menu, the menu will be added.


Item	Variable range	Remarks
VITC UB MODE	USER/EXT TIME DATE TCG <u>FRM RATE</u> REGEN	For selecting the VAUX TC (VITC) UB mode. USER/EXT: When EXT is selected as the UB MODE setting, the value concerned applies; with any other setting, the USER value set by UB is recorded. TIME: The local time (in hours, minutes and seconds) is selected. DATE: The local date (last 2 digits of AD year, month, day and hours) is selected. TCG: The TCG value is used as is for UB. FRM RATE: The same shooting information (frame rate, etc.) of the camera as for VAUX UB (VITC UB) is selected. REGEN: The value recorded on the tape is read and recorded continuously. <Note> When the unit is operated in the 24P or 24PA mode, this item is fixed at the FRM RATE setting. For details, refer to the 24P VITC UB item on the <OPTION> screen.

The underlining in the variable range column indicates the setting in the preset mode.

Specifications

BS Input: 100 V DC, 450 mA (supplied by AJ-BS901)

EXT Input: 12 V DC, 3.2 A

 Indicates safety information.

External dimensions (W × H × D): 6-3/16 × 7-9/16 × 6-13/16-inches
(156.5 × 191.5 × 173 (mm))

Weight: 4.84 lbs (2.2 kg)

Operating temperature range: 32°F to 104°F (0°C to 40°C)

Storage temperature range: -4°F to 140°F (-20°C to +60°C)

Operating humidity: 10% to 85% (relative humidity)

Compatible for use with: AJ-SDX900

Transfer block

Signal transfer rate: 360 Mbps (AJ-CA901 to AJ-BS901)

Transfer distance: 300 m with diameter 8.6 mm cable (Fujikura)
500 m with diameter 14.5 mm cable (Fujikura)

Video transfer rate: Signals from camera to base station:
Y signal: 18 MHz sampling rate, 10-bit
R-Y signal: 9 MHz sampling rate, 10-bit
B-Y signal: 9 MHz sampling rate, 10-bit
Signals from base station to camera:
RET signal: FM modulation
Prompt signal: FM modulation

Audio transfer rate: Signals from camera to base station:
46.875 kHz sampling rate, 16-bit
Signals from base station to camera:
11.71875 kHz sampling rate, 16-bit

Intercom

Microphone selection: Switchable between dynamic microphone and carbon microphone

I/O level: 4-line/2-line: 0 dBm (600 Ω, balanced)

RTS: 1 Vp-p (200 Ω)

PGM: 0 dBm (600 Ω, balanced)

Format: Selectable between 4-line, 2-line, and RTS

Lines: Base station to camera: 2 lines (ENG, PGM)

Camera to base station: 1 line (ENG)

S/N ratio: 50 dB or more

Distortion: 1.0% or less

Frequency range: 100 Hz to 10 kHz (± 3 dB) (camera to base station)

100 Hz to 5 kHz (± 3 dB) (base station to camera)

Dynamic range: 12 dB or more

Video system

Teleprompt output (PROMPT): 1 Vp-p (1 Vp-p input to AJ-BS901)

RET output: 1 Vp-p (1 Vp-p input to AJ-BS901)

Input connectors

Intercom connector: XLR 5-pin

External DC power supply input connector: XLR 4-pin, 11.5 V to 17.0 V DC

RET SW connector: 8-pin

Output connectors

Teleprompt (PROMPT) output connector: BNC VBS, 1 Vp-p, 75 Ω

RET signal output connector: BNC VBS, 1 Vp-p, 75 Ω

External power supply output connector: XLR 4-pin

PGM audio output connector: XLR 3-pin

Weight and dimensions shown are approximate.

Specifications are subject to change without notice.

Panasonic

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